

OPEN FOREST MANAGEMENT Bracken Control in The New Forest

Outlined below are the various methods currently employed by the Forestry Commission to control bracken on the Open Forest. We use the term control rather than eradicate as there are no methods, as yet, that totally and permanently kill bracken. Bracken is a vigorous, dominant plant and in some areas creates a tall, dense unbroken canopy that can grow up to 6 foot in height. This canopy collapses each autumn forming a thick litter mat (known locally as thatch) that rots down slowly. Over a period of several years the accumulated mat smothers most other low growing plant species. Bracken does encroach onto the open areas of heathland and it is these areas that we aim to control. The three methods described below control bracken with varying degrees of success.

1. HERBICIDE TREATMENTS

This is usually carried out on areas of bracken growing over heather. A selective herbicide is used such as Asulam. This is a post emergence, translocated herbicide which is absorbed by the foliage and stored in the rhizomes (roots) of the plant. The growth of the bracken in the following season is seriously retarded or fails entirely. The effects of a single treatment may last up to 5 years.

The current area treated each summer is approx. 100 hectares across the forest. Treatment season – mid July to late August. The cost of operation costs about £150 per hectare.

2. FORAGE HARVESTING

In basic terms bracken forage harvesting involves the cutting and removal of all bracken foliage, including leaf litter, from a site with the cut material then being transported to a central point for storage.

This is carried out on bracken growing over acid grassland and primarily upon flatter easy access sites that are free of obstructions. The bracken is cut using a tractor mounted forage harvester. The cut material is blown into a trailer enabling it to be removed from the site, thus leaving the ground free of the accumulated litter mat.

The current size of the annual programme is approx. 55 hectares across the forest. Treatment season – late august to the end of October.

On average, we produce 2000m³ of forage harvested material per year. The cost of the operation works out at about £200 per hectare.

A site can be forage harvested for about 4-5 seasons after which the bracken becomes too sparse to justify the operation.

Once forage harvested, the bracken is transported to a central storage site where it is heaped to enable the composting process to take place. For this operation to be effective the heap has to reach a minimum temperature of 60 °C. This can be aided by regular turning of the heap. We normally turn our heaps 2 or 3 times over the year. The addition of water whilst turning the heap also aids the composting process. It is important to maintain this temperature throughout composting as this eradicates any traces of carcinogens that may be present in the bracken, especially the spores.

The Forestry Commission carried out trials in 1992 and 1993 with the assistance of Dr. Rona Pitman, an independent scientist, to try and establish the best method of composting. Methods included adding nitrates, sulphates, chopping smaller and just leaving in a heap. Due to the confines of cost and available resources we have opted for the method of heaping and turning

only. If it is feasible the best method is to chop the material smaller using a chipper or similar device and then heap and turn. After a year or so the bracken is ready to be sold, though the longer it is left to compost the better.

Sales of composted bracken are doing very well with the majority of the product going to the local nurseries and garden centres. There is also a good market with gardening enthusiasts and local authorities. The composted bracken has a pH value of about 5-6 which is the acid side of neutral, making it ideal for ericaceous species such as heather, rhododendron, azaleas and maples. It can be used as a soil conditioner, a potting medium or as a top dressing for flowerbeds

3. SUMMER SWIPING

This is probably the most straightforward and basic form of bracken control and uses a simple set up comprising of a tractor and tractor mounted swipe (rotary mower).

If an area of bracken is mown for several years in succession during the plants active growing season, its vigour is reduced and the canopy begins to thin and reduce in height allowing other plants species to flourish. As with forage harvesting, mowing tends to be carried out where bracken is growing over grass, more so on forest lawns and grazing strips around inclosures.

The current size of the annual programme is approx. 15 hectares. Treatment season – July to early August. It is thought that when bracken is cut at this time of year its sap 'bleeds' from the plant causing a dramatic reduction in growth and weakening the plant in general. The cost of operation is about £50 per hectare.

It must also be mentioned that bracken does have its benefits. It provides food and shelter for several species. One such example is wild Gladiolus, a plant unique to the New Forest. This plant grows amongst bracken on several sites across the forest and relies to an extent on the protection provided by the bracken. Therefore, these known sites are managed with due consideration.

Source: *New Forest Heathland Management: A brief overview. D. Morris. 2002.*



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